

What is claimed is:

1. A disc brake assembly for an automotive vehicle, comprising:
 - a hub rotatable about an axis;
 - at least a pair of circumferentially extending brake discs supported on said hub for rotation therewith and for axial sliding movement relative to said hub along said axis and extending radially outwardly of said hub and having opposite sides presenting braking surfaces;
 - a non-rotatable support structure;
 - a plurality of non-rotatable brake pads having spaced ends in the circumferential direction of said brake discs friction elements supported by said non-rotatable support structure for relative axial movement into and out of frictional braking engagement with said braking surfaces;
 - a piston moveable from an unactuated position to an actuated position into engagement with an adjacent one of said non-rotatable brake pads to effect said sliding movement of said plurality of brake pads and said brake discs; and
 - a primary electric actuator mounted on said non-rotatable support structure adjacent at least one of said plurality of brake pads and operative when actuated to move said piston to an actuated position and to slide said plurality of brake pads and said brake discs into said frictional braking engagement with one another.
2. The disc brake assembly of claim 1 wherein said primary electric actuator includes an electric motor.
3. The disc brake assembly of claim 2 wherein said electric motor operates on 12 volts or less.

4. The disc brake assembly of claim 1 wherein said piston has a bore and said primary electric actuator comprises a screw portion rotatable about an axis when said primary electric actuator is actuated, said screw portion received at least in part in said bore of said piston operatively connecting said screw portion to said piston to effect said movement of said piston.

5. The disc brake assembly of claim 2 further comprising a secondary actuator coupled operatively to said piston and operative when actuated to move said piston to said actuated position independent of said actuation of said primary electric actuator.

6. The disc brake assembly of claim 5 wherein said secondary actuator is mechanically actuated to move said piston between said actuated and unactuated positions.

7. The disc brake assembly of claim 5 wherein said secondary actuator includes an electric motor.

8. The disc brake assembly of claim 5 wherein said secondary actuator includes a drive mechanism moveable between engaged and disengaged positions into and out of operative engagement with said piston.

9. The disc brake assembly of claim 8 wherein said drive mechanism includes a toothed rack.

10. The disc brake assembly of claim 9 wherein said drive mechanism includes a toothed gear engageable by said toothed rack.

11. A vehicle having a disc brake assembly, comprising:
a brake pedal;
a controller operatively connected to said brake pedal;

a hub rotatable about an axis;

at least a pair of brake discs supported on said hub for rotation therewith and for axial sliding movement relative to said hub along said axis and having opposite sides presenting braking surfaces;

a non-rotatable support structure;

a plurality of friction elements supported by said non-rotatable support structure for relative axial movement into and out of frictional braking engagement with said braking surfaces;

a piston moveable from an unactuated position to an actuated position to effect said sliding movement of said plurality of friction elements and said brake discs; and

a primary electric actuator mounted on said non-rotatable support structure adjacent at least one of said plurality of friction elements and operative when actuated to move said piston to an actuated position and to slide said plurality of friction elements and said brake discs into said frictional braking engagement with one another.

12. The disc brake assembly of claim 11 wherein said primary electric actuator includes an electric motor.

13. The disc brake assembly of claim 12 further comprising a secondary actuator coupled operatively to said piston and operative when actuated to move said piston to said actuated position independent of said actuation of said primary electric actuator.

14. The disc brake assembly of claim 13 wherein said secondary actuator includes a drive mechanism movable between engaged and disengaged positions into and out of operative engagement with said piston.